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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte DAVID WOESSNER, DECEASED,
by CATHERINE WOESSNER, LEGAL REPRESENTATIVE

Appeal 2011-003591
Application 10/501,591
Technology Center 1700

Before CHUNG K. PAK, CHARLES F. WARREN, and
JEFFREY T. SMITH, *Administrative Patent Judges*.

WARREN, *Administrative Patent Judge*.

DECISION ON APPEAL

Applicant appeals to the Board from the decision of the Primary Examiner rejecting for at least the second time claims 1-4, 7, 11-17, 26 and 28-36 in the Office Action mailed March 25, 2010. We have jurisdiction. 35 U.S.C. §§ 6 and 134(a) (2002); 37 C.F.R. § 41.31(a) (2009).

We affirm the decision of the Primary Examiner.

Claim 1 illustrates Appellant's invention of a method of forming a hose into a desired shape, and is representative of the claims on appeal:

1. A method of forming a hose into a desired shape, the method comprising the steps of:

cutting a hose into a desired length, said hose having a first end and an opposing second end;

drawing said desired length of said hose into a forming tube having an inner surface that defines an inner passage that defines a desired tube shape, wherein the step of drawing occurs after the step of cutting said hose, said forming tube including a vacuum end and a loading end, wherein the step of drawing said hose includes inserting said first end of said hose into said loading end of said forming tube and applying a vacuum to said vacuum end of said forming tube;

positioning a vacuum endcap on said vacuum end of said forming tube such that said first end of said hose contacts said vacuum endcap;

positioning a loading endcap on said loading end of said forming tube such that said opposing second end of said hose contacts said loading endcap;

curing said desired length of said hose into said desired shape while said hose is located in said forming tube;

finishing said first end and said opposing second end of said hose by the contact of said first end and said opposing second end against said vacuum end cap and said loading endcap, respectively during the step of curing; and

removing said hose having said desired shape from said forming tube.

Appellant requests review of the grounds of rejection advanced on appeal by the Examiner: under 35 U.S.C. § 112, first paragraph, written description requirement, claims 30, 31 and 33; and under 35 U.S.C. § 103(a), claims 1, 7, 13, 26, 30 and 33-36 over Roberts ‘622 (US 2,830,622), Roberts ‘840 (US 2,897,840) and Sadr (US 4,865,799), claims 2, 3 and 14 over Roberts ‘622, Roberts ‘840, Sadr and Akman (US 4,957,687), claim 4 over Roberts ‘622, Roberts ‘840, Sadr and Voss (US 3,859,408), claims 11 and 12 over Roberts ‘622, Roberts ‘840, Sadr and Hoshishima (US 5,518,035), claim 15 over Roberts ‘622, Roberts ‘840, Sadr and Torghele (US 4,483,815), claim 16 over Roberts ‘622, Roberts ‘840, Sadr and Houser

(US 4,325,355), claim 17 over Roberts ‘622, Roberts ‘840, Sadr and Babbin (US 4,512,942), claims 28 and 29 over Roberts ‘622, Roberts ‘840, Sadr and Voss, and claims 1, 31-36 over Logan (US 4,013,101), Roberts ‘622 and Roberts ‘840. App. Br. 3-5; Ans. 2, 4, 7, 9, 10, 11, 12, 14.

Appellant argues the grounds of rejection based on the common combination Roberts ‘622, Roberts ‘840 and Sadr with respect to claims 1 and 35. App. Br. 5, 7-9. Appellant does not submit argument with respect to the ground of rejection based on the combination of Logan, Roberts ‘622 and Roberts ‘840. App. Br. 9-10. Thus, we decide this appeal based on claims 1, 30, 31, 33 and 35, representing the grounds of rejection, to the extent argued in the Briefs. 37 C.F.R. § 41.37(c)(1)(vii) (2009).

OPINION

A. § 112, first paragraph, written description: Claims 30, 31 and 33:

We agree with Appellant the Examiner erred in maintaining the ground of rejection of claims 30, 31 and 33, all dependent on claim 1, under § 112, first paragraph, written description requirement. Ans. 2-3, 19-21; App. Br. 4-5; Reply Br. 1-2. We find that as Appellant submits, the Specification, including the Specification Figures, would have reasonably conveyed to one skilled in the art that Appellant was in possession of the claimed inventions encompassed by claims 30, 31 and 33 at the time the Application was filed, even though the limitations “the forming tube is formed of a singles component” (claim 30), “there is no support structure inside the hose during the step of curing, and pressure inside the hose prevents the hose from collapsing” (claim 31) and “the inner surface of the hose is substantially smooth” (claim 33) are not expressly disclosed in the Specification. *See, e.g., Vas-Cath Inc. v. Mahurkar*, 935 F.2d 1555, 1563-64

(Fed. Cir. 1991) (“[T]he test for sufficiency of support . . . is whether the disclosure of the application relied upon ‘reasonably conveys to the artisan that the inventor had possession at the time of the later claimed subject matter.’”) (quoting *Ralston Purina Co. v. Far-Mar-Co.*, 772 F.2d 1570, 1575 (Fed. Cir. 1985)); *see also*, e.g., *Lockwood v. American Airlines, Inc.*, 107 F.3d 1565, 1571-72 (Fed. Cir. 1997) (the disclosed invention can be described using “such descriptive means as words, structures, figures, diagrams, formulas, etc., that fully set forth the claimed invention”).

Therefore, we reverse the ground of rejection of appealed claims 30, 31 and 33 under 35 U.S.C. § 112, first paragraph, written description requirement.

B. § 103(a): Claims 1 and 35 - Roberts ‘622, Roberts ‘840 and Sadr

The dispositive issue raised by the positions of Appellant and the Examiner is whether the combination of Roberts ‘622, Roberts ‘840 and Sadr would have led one of ordinary skill in the art to modify the method of forming a hose disclosed by Roberts ‘622, wherein a hose preform is inserted into a forming tube, by using Sadr’s step of employing a vacuum to draw the hose preform into the forming tube, thus arriving at the claimed method encompassed by claim 1. Roberts ‘622 col.1 ll.54-67, col.2 l.72 to col.3 l.18, col.4 ll.9-34, Figs. 3, 6, 7; Sadr abstract, col.2 ll.8-52, Fig. 2. Ans. 4-5, 21-24; App. Br. 5-7; Reply Br. 2-3.

Appellant submits, with respect to the embodiment illustrated in Figure 3 of Roberts ‘622, that in view of the two sections 18a, 18b forming the forming tube of mold 18, “there is no reason to employ a vacuum to draw [hose preform] body 18 into the mold 1 to allow for easy placement as the mold 18 is in two parts.” App. Br. 5-6. Appellant further submits, with

respect to the embodiment illustrated in Figure 7 of Roberts ‘622, that body 14 mounted on mandrel 10 is inserted into cylindrical forming tube 24 which is suitably dimensioned to receive the insertion, and thus “[t]here is no reason to employ a vacuum” as it “would provide no additional function.”

App. Br. 6; Reply Br. 2.

We find that contrary to Appellant’s contentions, Roberts ‘622 would not have taught one of ordinary skill in the art that the forming tube must be in two parts when the hose preform is inserted there in or otherwise be constructed with dimensions which permit the hose preform to be drawn therein with ease, or that the forming mandrel must always be used to introduce the preform therein. *See* Roberts ‘622 col.1 ll.54-58. Indeed, we determine that one of ordinary skill in the art would have reasonably inferred from the teachings of Roberts ‘622 that the hose preform may have to be urged into the forming tube mold and would have employed suitable means in this respect to carry out the method of Roberts ‘622.¹ We find that one of ordinary skill in the art would have reasonably recognized that Sadr’s vacuum drawing step for the insertion of a parison into a tube mold could be used to draw other materials into tubes. Indeed, Appellant does not argue that Sadr’s vacuum drawing method would not work with the hose preforms and forming tube molds of Roberts ‘622. Thus, one of ordinary skill in the art routinely following the combined teachings of Roberts ‘622 and Sadr

¹ It is well settled that a reference stands for all of the specific teachings thereof as well as the inferences one of ordinary skill in this art would have reasonably been expected to draw therefrom, *see In re Fritch*, 972 F.2d 1260, 1264-65 (Fed. Cir. 1992); *In re Preda*, 401 F.2d 825, 826 (CCPA 1968), presuming skill on the part of this person. *In re Sovish*, 769 F.2d 738, 743 (Fed. Cir. 1985).

would have reasonably arrived at the claimed method of forming a hose encompassed by claim 1. *See, e.g., KSR Int'l Co. v. Teleflex Inc.*, 550 U.S. 398, 421 (2007) (“When there is a design need or market pressure to solve a problem and there are a finite number of identified, predictable solutions, a person of ordinary skill in the art has good reason to pursue the known options within his or her technical grasp. If this leads to the anticipated success, it is likely the product not of innovation but of ordinary skill and common sense.”); *In re Kahn*, 441 F.3d 977, 985-88 (Fed. Cir. 2006); *In re Sovish*, 769 F.2d at 743 (skill is presumed on the part of one of ordinary skill in the art); *In re Keller*, 642 F.2d 413, 425 (CCPA 1981) (“The test for obviousness is . . . what the combined teachings of the references would have suggested to those of ordinary skill in the art.”); *see also, e.g., In re O'Farrell*, 853 F.2d 894, 903-04 (Fed. Cir. 1988) (“For obviousness under § 103, all that is required is a reasonable expectation of success.” (citations omitted)).

We are not persuaded otherwise by Appellant’s further contentions. We find that contrary to Appellant’s position, one of ordinary skill in the art would have reasonably inferred from Roberts ‘622 that both ends of the forming tube would be plugged as indeed, Reverts ‘622 would have disclosed that the hose preform “assembly is . . . inserted into a mold having a cylindrical cavity and the ends of the body attached in an airtight manner to the end portions of the mold and fluid under pressure is applied to the interior of the hose.” Roberts ‘622 col.1 ll.54-59. App. Br. 6; Reply Br. 2-3. *In re Sovish*, 769 F.2d at 743. In any event, as the Examiner contends, the combination of Roberts ‘622 and ‘840 would have led one of ordinary skill

in the art to use a plug at both ends of the forming tube mold of Roberts ‘622. Ans. 4-5, 22-23.

Furthermore, the method of claim 1 requires that the “finishing” step is accomplished by contacting the ends of the hose preform with the endcaps, that is, plugs, at each end of the forming tube “during the curing step.” We find that the use of a plug at both ends of the forming tube, each in contact with the hose preform, at the time of curing the preform in Roberts ‘622 describes this limitation of claim 1. Moreover, we are not convinced by Appellant that claim 1 distinguishes over the partial curing step of Roberts ‘840. App. Br. 6-7; Reply Br. 3. We determine that the plain language of claim 1 specifies a method for the formation of “a hose in a desired shape” comprising at least the specified steps including “curing said . . . hose into said desired shape,” and does not specify the extent of “curing” in this respect. We find that Roberts ‘840 would have taught one of ordinary skill in the art that hose preform is “partially or semi-cured” in the forming tube mold “to hold its molded form,” and thus describing the subject limitation of claim 1. Roberts ‘840 col.4 ll.65-74.

We are also unconvinced by Appellant’s contention that claim 35, which limits claim 1 by specifying that “a material of the hose defines an outermost layer of the hose,” distinguishes over Roberts ‘822. App; Br. 7; Reply Br. 3. We determine that the ‘material of the hose’ can be “any polymeric material which cures” (Spec. 3:5-6) which is satisfied by the teaching in Roberts ‘622 that ‘wrapping or layer 17 of outer material . . . is herein illustrated as a layer of elastomeric material’ which cures. Roberts ‘622 col.2 ll.63-67; see also col.1 ll.51-54, col.2 ll.30-40.

Accordingly, based on our consideration of the totality of the record before us, we have weighed the evidence of obviousness found in the combined teachings of Roberts ‘622 and ‘840 and Sadr, alone and as combined with the other references applied by the Examiner, with Appellant’s countervailing evidence of and argument for nonobviousness and conclude, by a preponderance of the evidence and weight of argument, that the claimed invention encompassed by appealed claims 1-4, 7, 11-17, 26 and 28-36 would have been obvious as a matter of law under 35 U.S.C. § 103(a).

C. § 103(a): Claim 1 - Logan, Roberts ‘622 and Roberts ‘840

We summarily affirm this ground of rejection which Appellant has not argued in the Briefs. App. Br. 9-10; *see generally* Reply Br. Cf., e.g., *In re Baxter Travenol Labs.*, 952 F.2d 388, 392 (Fed. Cir. 1991) (“It is not the function of this court to examine the claims in greater detail than argued by an appellant, looking for nonobvious distinctions over the prior art.”).

We affirmed the grounds of rejection of claims 1-4, 7, 11-17, 26 and 28-36 under 35 U.S.C. § 103(a), and we have reversed the ground of rejection of claims 30, 31 and 33 under 35 U.S.C. § 112, first paragraph, written description requirement.

The Primary Examiner’s decision is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED

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